

Appln. No.: 10/511,817
Amendment Dated June 21, 2006
Reply to Office Action of March 21, 2006

PC10423US

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1-10 (Cancelled).

11. (Currently Amended) Solenoid valve, ~~in particular for motor vehicle wheel slip control systems,~~ comprising:

a valve housing furnished with pressure fluid channels in which a valve tappet is movably guided that is directed with its valve closure member to a valve seat,

a magnet armature fitted to the valve tappet and performing a stroke movement on a magnet core arranged in the valve housing in dependence on the electromagnetic energization of a valve coil secured to the valve housing, and

a spring that positions, in the electromagnetically non-energized valve position, the magnet armature at a defined axial distance from the magnet core in such a fashion that the magnet armature is separated from the magnet core by a space, to what end the spring is supported with one end on the magnet core, wherein the other end of the spring abuts on an area of the valve tappet remote from the valve seat, said valve tappet being arranged in a bore of the magnet armature so as to be adjustable for the variation of ~~[[the]]~~ a preloading force of the spring.

12. (Previously Presented) Solenoid valve as claimed in claim 11,

wherein the adjustment of the valve tappet in the bore of the magnet armature takes place by means of a frictional engagement of the valve tappet and the magnet armature.

13. (Currently Amended) Solenoid valve as claimed in claim 11,

wherein the valve tappet has a many-sided profile, ~~in particular a triangular profile,~~ in the contact area with the bore of the magnet armature, and a free space is maintained between the peripheral surface of the many-sided profile and the bore of the magnet armature permitting a hydraulic pressure balance on either side of the magnet armature.

14. (Currently Amended) Solenoid valve as claimed in claim 12,

wherein the valve tappet has a many-sided profile, ~~in particular a triangular profile,~~ in the contact area with the bore of the magnet armature, and a free space is maintained between

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the peripheral surface of the many-sided profile and the bore of the magnet armature permitting a hydraulic pressure balance on either side of the magnet armature.

15. (Previously Presented) Solenoid valve as claimed in claim 13,
wherein outside its contact area with the bore of the magnet armature, the valve tappet has a step on which the end of the spring remote from the magnet core is supported.
16. (Previously Presented) Solenoid valve as claimed in claim 14,
wherein outside its contact area with the bore of the magnet armature, the valve tappet has a step on which the end of the spring remote from the magnet core is supported.
17. (Previously Presented) Solenoid valve as claimed in claim 15,
wherein adjacent to the step in the direction of the magnet core is a guiding pin that extends into the spring configured as a helical spring, to what end the diameter of the guiding pin is adapted to the inside diameter of the helical spring in consideration of a radial clearance in order to prevent buckling of the spring.
18. (Previously Presented) Solenoid valve as claimed in claim 16,
wherein adjacent to the step in the direction of the magnet core is a guiding pin that extends into the spring configured as a helical spring, to what end the diameter of the guiding pin is adapted to the inside diameter of the helical spring in consideration of a radial clearance in order to prevent buckling of the spring.
19. (Previously Presented) Solenoid valve as claimed in claim 17,
wherein a transition area is provided between the step and the guiding pin for the operative and/or positive attachment of the one end of the spring.
20. (Previously Presented) Solenoid valve as claimed in claim 18,
wherein a transition area is provided between the step and the guiding pin for the operative and/or positive attachment of the one end of the spring.
21. (Previously Presented) Solenoid valve as claimed in claim 19,
wherein the transition area is an annular groove into which the one end of spring snaps.
22. (Previously Presented) Solenoid valve as claimed in claim 20,

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wherein the transition area is an annular groove into which the one end of spring snaps.

23. (Previously Presented) Solenoid valve as claimed in claim 11,

wherein the preloading force of the spring to be adjusted corresponds to a weight applied to the end of spring remote from the valve tappet.

24. (Currently Amended) Solenoid valve as claimed in claim 23,

~~wherein after the desired preloading force of the spring is reached by way of displacement of the valve tappet in the magnet armature, the weight has been lifted by the stroke of comprising an operational clearance adjacent the magnet armature, said clearance being provided by the preloading force of the spring necessary for operation of the valve.~~

25. (Cancelled).

26. (New) A method of adjusting a preloading force of a spring in a solenoid valve, said method comprising the steps of:

interconnecting a valve tappet, a magnet armature and a compression spring to form a subassembly to be incorporated into the solenoid valve;

connecting a device onto the subassembly with a bottom portion of the device seated on an end of the magnet armature, the device having a stepped bore into which an end of the compression spring projects;

guiding a weight in the stepped bore under the influence of gravity until a bottom surface of the weight contacts the end of the compression spring that projects in the stepped bore; and

applying a displacing force to the valve tappet to displace the valve tappet relative to the armature, the displacing force being selected to displace the weight by a predetermined stroke distance corresponding to an operational clearance to be maintained after the subassembly is incorporated into a solenoid valve.